

UNIVERSAL VALVE COMPANY, INC.

478 SCHILLER STREET, ELIZABETH, NEW JERSEY 07206 (908) 351-0606 FAX: (908) 351-0990

Dockets Management System U.S. Department of Transportation Room PL. 401 4000 Seventh Street, SW. Washington, DC 20590-001

June 5, 2003

Re: RSPA-1999-6223 (HM-213B), Hazardous Materials: Safety Requirements for External Product Piping on Cargo Tanks Transporting Flammable Liquid

Universal Valve is submitting the following information for consideration. Universal Valve Company has a product that will eliminate the danger of wetlines (unprotected piping). Our Double Poppeted Emergency Valve (Model 001 DP-TL) is designed to be mounted on the underside of a tank trailer, or cargo tank. The 001 DP-TL is designed to replace the single poppeted emergency valves that are currently mounted on the underside of a cargo tank. The Model 001 DP-TL has a shear groove that meets 49 CFR 178.345-8. The upper seat area of the valve is located inside the tank shell as required by DOT regulations. The elbow area is designed to shear off in the event of an accident, leaving the valve seat intact and preventing product loss from the tank. The secondary or lower poppet prevents product from escaping from the sheared-off piping. This is accomplished by trapping the product inside the aluminum piping. The aluminum pipe will normally bend and fold, keeping the integrity of the pipe intact. If a tear or crack does occur in the aluminum pipe, it is normally small allowing only a minute amount of fluid to escape.

The valve's secondary poppet will not interfere with any bottom loading operations, and requires no additional equipment, operational, or procedural modifications. The secondary poppet is normally open, and closes only when the valve is sheared. This is accomplished by an external link that rests on the valve's upper flange. During an accident, when the valve is sheared, it allows the external link to rotate, closing the valve, thus trapping the product in the



pipe (wetline). By trapping the product in the piping, it prevents the product from escaping, which will eliminate the potential for any catastrophic accidents, and loss of life from occurring.

The valve is easily retrofitted to existing cargo tanks, and uses the same footprint as a standard single poppet emergency valve. This makes the conversion process to a double poppeted emergency valve very easy and economical. In fact, if a three to five year roll-out plan was in place for replacing single poppeted emergency valves to double poppeted emergency valves no major economical impact would be incurred by the cargo tank owner. During this three to five year period, the owner will probably have to replace or repair the current emergency valve, at that time a double poppeted emergency valve could be installed, reducing any financial hardship on the owner.

To recap the 001 DP-TL double poppeted emergency valves:

- Prevents product from escaping the wetline if accident occurs
- Requires no modification to the existing cargo tank, except for installation of valve
- Easily retrofitted
- Requires no modification, additional equipment or procedure changes at the rack.
- Most economical solution that will not hurt our industry financially

As the industry knows the fatality and incident rate is low for the wet line process. This product allows the process to continue as in the past with no changes, except for the addition of the valve. If other methods such as purging are introduced, other problems may occur that result in even more fatalities.

If you would like to discuss this further please feel free to contact me at 908-351-0606, or martinp@universalvalve.com. I have also attached some pictures of the product for your review.

Sincerely,

Martin Pettesch
Executive Vice President









Model 001 DP-TL

Double Poppeted Emergency Valve

Single Poppet Emergency Valve











Cut away of Model 001 DP-TL

Double Poppeted Emergency

Valve

Cut away of Model 001 DP-TL
Double Poppeted Emergency
Valve With Valve Sheared and
Secondary Wet Line Poppet Closed
Trapping Product In The Wet Line.

UNIVERSAL VALVE COMPANY, INC.



